

IV. Remarks

Responsive to the outstanding Examiner's Action, the applicant has carefully studied the Examiner's comments. Favorable reconsideration of this application is respectfully requested in light of the following detailed discussion.

Claims 12-28 are pending in the application. Claims 12-24 and 26-28 are rejected. Claim 25 is withdrawn. Claims 1-11 have been cancelled. Claims 12, 22, 23 and 26 have been amended. A listing of the pending claims, along with a status indicator of each claim, appears above.

Claims 22-24 were rejected under 35 USC 112, second paragraph, based on language in claim 22. Claim 22 has been amended to correct the antecedent basis issue in the rejection. The amendment to claim 12, from which claim 22 depends, overcomes the Examiner's other concern regarding the scope of claims 12 and 22.

Claim 23 has been amended to correct a typographical error. Support for the amendment is found at least at page 7, line 9.

Claims 12-17, 19-21 and 26-28 are rejected under 35 USC 103(a) as being unpatentable over WO 01/82399 to Lewinski in view of Zhang et al (U.S. Pre-Grant Publication No. 2004/0033408). More specifically, the Examiner indicated Lewinski teaches all of the elements of independent claims 12 and 26 except the claimed substructure but that Zhang's metal coating, in combination with Lewinski, makes the invention obvious to one of ordinary skill in the art at the time the invention was made.

At the outset, Applicant respectfully disagrees that Lewinski makes the claimed microstructures obvious. Lewinski happens to refer to certain structures on its electrical contact surface as microstructures, but in fact they are not the same, as or even equivalent to, Applicant's

microstructures. Instead, it can be appreciated from a careful reading of Lewinski that it only suggests an electrical contact surface, not with microstructures located thereon, as Applicant defines and claims the term, but instead with substructures located directly thereon. Thus, Lewinski entirely skips Applicant's microstructures. Swapping structures in the prior art to teach Applicant's claimed invention is not permissible in this case as the claim would no longer be interpreted in light of the specification. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969); MPEP Section 2111.

Zhang does nothing to supplement the shortcomings of Lewinski as it fails to teach each of Applicant's claimed elements including a foil layer, microstructures and a substructure superimposed above the microstructures. At best, Zhang merely suggests locating an electrically conductive coating in areas making electrical contact with the anodes and cathodes.

To make electrical contact, Zhang's coating does not need, and does not teach, any kind of microstructure or substructure at all. Further, the term "coating" lacks any teaching or suggestion of a structure as required by Applicant's use of the terms "microstructure" or "substructure." See *In Re Prater, supra*. Applicant's terms are nevertheless further clarified in the present amendment by putting the relative magnitudes of the microstructures and substructures in context with one another and the other claimed structures and defining the fractal pattern between the substructures and the microstructures.

Furthermore, there is nothing in either reference, taken alone or together, that teaches, suggests or makes obvious enhancing the rigidity of the foil by the microstructures. Applicant's invention is designed to enhance the rigidity of the foil for the reasons stated in the application, including facilitating the use of thinner foils and reducing weight. There is nothing in either

reference that teaches or suggests any of their structures, whether utilized separately or when combined, influences, either directly or indirectly, the stability of the alleged foil in Lewinski.

Lewinski is only concerned with using its alleged structures to enhance electrical conductance; it is silent on any feature enhancing rigidity of the foil. Zhang has similar teachings – it provides a coating for electrical and mechanical *contact* reasons. Again, however, it lacks any reference to enhancing the rigidity of a foil or any reason one would want to enhance rigidity.

Independent claims 12 and 26 have been amended to clarify that the substructure defines a fractal pattern with the microstructures. No new matter has been entered as a result of these claim amendments as the claim language is clearly supported in the Figures, such as at least Figs. 3 and 4, as well as the written description from at least page 11 line 8 to line 24.

There is nothing in either reference to teach or suggest that any coating over the alleged microstructures in Lewinski defines any pattern at all. Further, Zhang is completely silent on the metal coating identified by the Examiner exhibiting any pattern, or any need to exhibit a pattern, at all. Further yet, Zhang is completely silent on the metal coating having a fractal pattern, or any need to have a fractal pattern. Indeed, the metal coating of Zhang is primarily concerned with electrical conductivity, so that patterning, such as to drain off liquid water from the channel landings to the channels in the present invention, is neither taught nor made obvious by the reference.

Further, Applicant has clarified both independent claims 12 and 26 to indicate that the channel structure has an order of magnitude different than the microstructures. Additionally, Applicant has clarified both independent claims 12 and 26 to indicate that the substructure is an order of magnitude different than the microstructures. Of course, since the references lack the

required substructure and microstructures of the present invention, they also lack any teaching or suggestion that the alleged substructures are an order of magnitude different than the microstructures. Further, neither reference has any teaching or suggestion regarding the respective differences in orders of magnitude between the channel structure, the microstructures and the substructures.

In light of the above discussion and the amendments to claims 12 and 26, amended claims 12 and 26 of the present invention are patentable. Furthermore, claims 13-24 and 27-28 each depend on claims 12 or 26, either directly or indirectly, and contain all of the limitations thereof. Therefore, because claims 12 and 26 are patentable and claims 13-24 and 27-28 each depend on claims 12 and 26, claims 13-24 and 27-28 are patentable over the references.

The fees for the RCE are included herewith. No additional fees are believed due with this response. In the event that additional fees are due, please charge them to Deposit Account No. 13-1816. Kindly credit any overpayment to the same account. In either case, please associate D030001-17858001 with any credit or debit of the Deposit Account.

In light of the remarks above, it is believed the claims are now in condition for allowance and an early Notice of Allowance is respectfully requested.

Should the Examiner wish to modify any of the language of the claims, applicant's attorney suggests a telephone interview in order to expedite the prosecution of the application.

Respectfully submitted,

  
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